

DOCUMENT RESUME

ED 252 842

CS 007 918

AUTHOR Marshall, James D.
TITLE The Effects of Writing on Students' Understanding of Literary Texts.
PUB DATE Nov 84
NOTE 24p.; Paper presented at the Annual Meeting of the National Council of Teachers of English (74th, Detroit, MI, November 16-21, 1984). Document may not reproduce well.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Case Studies; English Instruction; Grade 11; *Literature Appreciation; Pretests Posttests; *Reader Response; Secondary Education; Teaching Methods; *Writing (Composition); Writing Evaluation; Writing Exercises; Writing Processes; *Writing Research
IDENTIFIERS Protocol Analysis; Reading Writing Relationship

ABSTRACT

A study investigated the role that writing plays in eleventh grade students' understanding of literary texts. Classroom observations, collected student writing, interviews with the teacher, and interviews with six case study students--two from each of three classes--provided a portrait of teaching methods, writing tasks, and student responses to each. Students read four short stories with no teacher-sponsored discussion. No writing was done after the first story. For each of the remaining three, students completed one of three in-class writing tasks: (1) restricted writing, consisting of unelaborated descriptions, interpretations, and generalizations; (2) personal writing, in which students were to explain and elaborate upon their individual responses; and (3) formal writing, in which students were to interpret the story in an extended fashion, drawing inferences from the text alone. Case study students completed the same assignments, and their verbal composing protocols were recorded. Still without class discussion, posttests on each of the stories were administered three days after students had read them, and a final posttest was given at the end of the unit. The individual and final posttest results indicated that the positive effects of extended writing versus restricted writing increased over time. At all three levels (generalization, description, and interpretation), when students wrote extensively about a story in either a personal or a formal mode, they scored better on the posttests than when they wrote in a restricted mode. (HTH)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

X This document has been reproduced as
received from the person or organization
originating it.

Minor changes have been made to improve
reproduction quality.

Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.

ED252842

The Effects of Writing on
Students' Understanding of Literary Texts

James D. Marshall
Stanford University
October, 1984

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

James D. Marshall

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

CS 007 91B

Introduction

How do the ways in which students write about literature help shape their understanding of literature itself? From the middle years of elementary school through secondary school and beyond, students are assigned writing tasks which are centered on their experience of literature. These assignments range across a variety of forms--from brief, summative book reports on plot and character through personal responses and evaluations to elaborate and sometimes sophisticated discussions of theme, image, and authorial intention in the later years of schooling. Yet, though writing about literature represents a substantial portion of all the writing students complete in school, little is known about the effects these writing activities might have on students' understanding of literary texts.

Over the last decade, a great deal of scholarly argument has focused on the possible relationships between writing and learning (Martin, 1975; Emig, 1977; Van Nostrand, 1979; Odell, 1980; Bruner and Olsen, 1980). None of this work, however, has looked directly at students' developing knowledge of literary texts. In fact, with the exception of studies in prose learning (for example, Wittrow, Doctorow, and Marks, 1978; Masqud, 1980; Annis, 1980), there has been very little empirical work which has focused on how the act of composing itself may be instrumental in shaping a writer's understanding of concepts or texts (Weiss and Walters, 1980; Newll, 1984; Langer and Applebee, in progress). The purpose of this study was to investigate the role that writing plays in students' understanding of literary texts by examining their composing processes, written products, and post-test achievement

when writing about literature in a classroom environment.

Procedures

After preliminary interviews, an experienced secondary English teacher of excellent repute was chosen to collaborate with the investigator. For a period of three months, observational and case study techniques were employed to gather base line data on typical patterns of instruction in three of the teacher's 11th grade classes. Classroom observations, collected student writing, interviews with the teacher, and interviews with six case study students, two from each of the three classes, provided a portrait of teaching methods, writing tasks, and student responses to each.

When a sense of context had been established, an instructional unit on J.D. Salinger, cooperatively planned by the teacher and the investigator, was taught to each of the three classes. As part of the unit, students read four Salinger short stories with no teacher-sponsored discussion. With the first of these, no writing occurred. With each of the remaining three, students completed one of three in-class writing tasks. These tasks consisted of 1) Restricted writing, in which students were to state, but not elaborate upon, their descriptions, interpretations, and generalizations about a story. Students responded to eight short answer questions on these assignments. 2) Personal writing, in which students were to explain and elaborate upon their individual responses to the story, drawing upon their own values and previous experience and 3) Formal writing, in which students were to interpret the story in an extended fashion, drawing inferences from the text alone. Order of stories, order of assignments, and story by assignment were counterbalanced across the

three classes.

At the same time as their classmates were completing these assignments, the case study students were meeting with investigators to complete the same assignments while composing aloud, following procedures described by Hayes and Flower (1980).

With no further classroom discussion, post-tests on each of the stories were administered three days after students had written about them. The tests included questions designed to elicit paragraph-length responses at three levels of understanding--description, interpretation, and generalization. An additional post-test, designed to elicit longer free responses to each of the stories, was administered on the last day of the 5-week Salinger unit. Since order of treatments was counterbalanced across classes, the final post-test allowed a contrast among the treatments over time.

In the end, the data collected included over 50 hours of classroom observations, 12 hours of student interviews, 18 hour-long composing aloud protocols, over 350 written assignments, and over 350 written tests on the stories. Table 1 summarizes the data collected within the observational and experimental portions of the study.

It is beyond the scope of this report to detail all of the analyses and results of the study. Instead, I would like to focus on the findings that may be the most interesting--the test results, which suggested how students were thinking about the stories they read after writing about them in several modes and at various intervals of time. Before turning to these findings, I will briefly describe the analyses performed on the post-test responses.

Table 1

SUMMARY OF DATA COLLECTION

Observational		Experimental	
Classroom Observations	18	Classroom Observations	33
Student Interviews	12	Composing Aloud Protocols	18
Collected Writing	154	In-class Assignments	208
		First post-test	290
		Second post-test	74

Analyses

In order to determine the effects of the four writing conditions (no writing, restricted writing, personal writing, formal writing) on students' subsequent mode of literary response, each post-test answer was first scored as either text-based or reader-based. A text-based response focused solely on textual materials, describing and making inferences in a more-or-less objective fashion. The following example of a text-based response is taken from Terry's final test on "The Laughing Man."

"The Laughing Man" represented the emotions and underlying motives of the Chief. The Chief had several different lives, or more accurately, life-styles. In one respect, he was the patient, admirable "Chief" to the boys. On the other hand he was the quiet and studious law student who was not particularly wealthy. Nonetheless, he was going out with a very rich and intelligent "Wellesley girl."

In a reader-based response, on the other hand, students took a more personal approach to the story, employing their own values and prior experience in making sense of the text. The following example of a reader-based response is taken from Sarah's final test, also on "The Laughing Man."

The thing most memorable to me about "The Laughing Man" is the Chief, and his own motives for creating the laughing man stories. In reading the story, I kept thinking of the saying, "don't judge a book by its cover." The Chief was often judged by his cover--or outside appearance and people would fail to see the inside. Except for the Comanches. They loved and respected him for his caring nature.

Interrater reliability in determining response mode was .94 across the three question levels of the first test and .96 for the final post-test.

After post-tests were scored for response mode, they were scored again for quality using a 6-point scale developed for each question level (description, interpretation, generalization) of the first post-test or an 8-point scale developed for the final post-test (Please see Appendix).

In general, student responses were scored low when they remained within a summary frame, using few textual specifics and making very low-level inferences. They were scored higher when they moved beyond a retelling of the story to an analysis of its features, supporting inferences and evaluations with specific details from the text. For example, the following response to a question at the interpretive level on "Pretty Mouth and Green My Eyes" received a relatively low score (2). The question read, "Why does Arthur call Lee for a second time near the end of the story?" Tom responded:

He was calling Lee back because he was trying to get Lee to believe that Joanie really did care about him and had come home."

Besides being relatively unelaborated, Tom's answer does not move much beyond events depicted in the story.

On the other hand, Michael's response to the same question received a high score (6):

Arthur is aware that Joanie is sleeping at Lee's home with his friend, and it is for this reason that he calls Lee. He wishes to salvage his relationship with Lee, and so he calls Lee, pretending not to know where Joanie is. Lee tries to comfort a "disturbed" Arthur and finally persuades him to hang up and go to bed. A minute later, Lee receives a second call from Arthur who claims that Joanie has just come home, which, in reality, she hasn't. The purpose behind the second phone call is to make Lee realize that he (Arthur) knows that Joanie is

there and that he doesn't care so long as their friendship can be salvaged.

Although Michael's reasoning about Arthur's motives is at least debatable, it seems clear that he has supported his inferences with extensive and specific details from the text.

Interrater reliability for the quality measure was .82 across the three levels of the first post-test and .91 for the final post-test.

When all answers to both post-tests had been scored for mode and quality of response, multivariate analysis of variance procedures were employed to determine the effects of the four writing treatments on test results. Due to student absences, complete data sets were not available for several students in each class. These cases were dropped from the analysis. In addition, three complete data sets were randomly excluded from the analysis in order to achieve an equal number of cases within each class. Because the cooperating teacher wished to discuss the story about which students had done no writing after they had taken their first post-test, this story was not included on the final post-test.

Results

The findings from the post-tests fall into three major groups:

- 1) Mode of response on both post-tests
- 2) Quality of response on the first post test
- 3) Quality of response on the final post-test.

MODE OF RESPONSE

Of the 648 total responses on the first post test, 216 from each question level, 89 or 14 percent were coded as reader-based. 9 percent of the answers to descriptive questions were reader-based, as were 16 percent of the answers to interpretive questions and 17 percent of the

answers to questions which asked students to generalize.

If we collapse across question levels and break these results down by the writing treatment which preceded the post-test, we see that 28 of the 89 or 31 percent followed the no writing treatment, while 30 percent followed personal writing, 26 percent followed restricted writing, and only 14 percent followed formal writing.

By themselves, these results are not surprising. The students in these classes were not accustomed to taking a personal approach to literary analysis, and were not likely to do so when presented with a test. Moreover, the breakdown of reader-based responses by question level and preceding writing assignment shows predictable results. Students would seem more likely to bring their own values and experience to bear when interpreting or generalizing than when describing. At the same time, they would be less likely to take a personal approach on a test if they had been encouraged to take a formal, objective approach in a preceding essay about the same story.

Another kind of picture emerges, however, when the reader-based and text-based responses are broken down by the quality scores which accompanied them. Table 2 summarizes these results.

Here it seems clear that the students who made a reader-based response were more likely to score in the upper range of the quality measure at two of the question levels than were students who took a text-based approach. At the same time, those students who took a text-based approach were more likely to score well on questions which asked them to generalize.

The reason for this difference may lie in some of the semantic

Table 2

MODE OF RESPONSE BY QUALITY OF RESPONSE: FIRST POST-TEST

	Percent of Responses		
	Low (1-2)	Middle (3-4)	High (5-6)
<u>Description</u>			
Reader-based (n=19)	37	16	47
Text-based (n=197)	16	63	21
<u>Interpretation</u>			
Reader-based (n=34)	18	41	41
Text-based (n=182)	18	50	32
<u>Generalization</u>			
Reader-based (n=36)	05	62	33
Text-based (n=180)	07	49	44

Table 3

MODE OF RESPONSE BY QUALITY OF RESPONSE: FINAL POST-TEST

	Percent of Responses		
	Low (1-2)	Middle (3-5)	High (6-8)
Reader-based (n=50)	22	02	76
Text-based (n=135)	06	39	55

features of the reader-based response. Jennifer, for example, made the following response to a descriptive question on "A Perfect Day for Bananafish." The question asked students to "Describe Muriel, the young woman who answers the phone at the beginning of the story." Jennifer answered

I thought of Muriel as a very care-free person. For example, she does not care that Seymour is crazy and may do something violent at any minute. She just wanted to go on vacation and it did not seem to bother her who she was with. I also got the impression that she was somewhat of an airhead. I got this impression from the way she talked to her mother on the telephone. Also, most people do not paint their toenails while talking on the telephone.

Jennifer uses several specific details in constructing her answer, but she moves well beyond these details to draw some fairly sound inferences about Muriel's character. While it is clear that such inferences could be drawn without the intrusion of the first person, I would like to suggest that Jennifer's decision to speak in a personal voice may have provided a kind of semantic support for her interpretive effort. "I think," "I feel," or "I got the impression" are constructions usually followed by inferences, not facts. In making these inferences, Jennifer was able to move beyond her classmates, who, for the most part, simply provided facts about the characters when asked descriptive questions about them.

On the other hand, the fact that students who took a text-based approach to generalization questions more often scored higher on the quality measure can be explained by the nature of the question asked. Here, students were to render judgements about what the stories "said" about the world outside the story, and better answers were generally rich with facts about that world as well as textual details.

On the second post-test, consisting of free responses to the stories about which students had actually written, no strong pattern emerged with respect to the writing assignments which had come before. 17 of the 63 (27 percent) free responses which had been preceded by restricted writing were scored as reader-based, while 28 percent of the responses preceded by personal writing and 23 percent of the responses preceded by formal writing were so scored.

However, as Table 3 shows, there was again a greater likelihood that those who took a reader-based approach would score in the upper ranges of the quality measure than those who took a text-based approach (76 percent versus 55 percent). The same explanation for the difference may apply to responses on both tests: students who took a reader-based approach were more likely to move beyond the information given by the story to make inferences and judgements about its features. They sometimes made these judgements without providing textual support--in which case they were scored low. But when they did provide support, their answers were judged of high quality.

QUALITY OF RESPONSE: FIRST POST-TEST

How did the four writing treatments affect the quality of responses made three days after the writing was completed? Multivariate analysis of variance procedures were employed to determine effects for treatment, story, and treatment by story at each of the three question levels. Table 4 presents means and statistical results for the descriptive level.

The results indicate a significant difference between restricted writing on the one hand versus personal writing and formal writing on

Table 4

Descriptive Level

QUALITY SCORE MEANS BY TREATMENT

No Writing	Restricted	Personal	Formal
3.79	3.22	3.6	3.9

No Writing vs. Writing, Multivariate F (1, 53) = 1.06, ns

Writing, Multivariate F (2, 51) = 3.50, $p < .05$

RW vs PW + FW, $t=2.49$, $p < .02$

PW vs FW, $t=.476$, ns

Story, Multivariate F (2, 51)=.491, ns

Treatment by Story, Multivariate F (2, 51)=.395, ns

Table 5

Interpretive Level

QUALITY SCORE MEANS BY TREATMENT

No Writing	Restricted	Personal	Formal
3.19	3.50	4.30	4.30

No Writing vs Writing, Multivariate F (1, 53)=12.00, $p < .001$

Writing, Multivariate F (2, 51)=5.52, $p < .005$

RW vs. PW + FW, $t=3.32$, $p < .001$

PW vs. FW, $t=1.78$, ns

Story, Multivariate F (2, 51)=3.73, $p < .03$

Treatment by Story, Multivariate F (2, 51)=.619, ns

the other. No significant difference was found between personal writing and formal writing, nor between no writing and the pooled results of the writing conditions. There was no effect for story and no story by treatment interaction.

These findings suggest that when these students wrote extensively about a story, they were more likely to respond with specific details and some amount of inferencing when asked later to describe features of the story than when they had written in a restricted fashion. Moreover, the findings suggest that when students did no writing at all about a story, they scored somewhat better than when they completed a restricted writing assignment.

Comparable results were found for responses at the interpretive level. Table 5 presents means and statistical results for responses to these questions.

At the interpretive level, there was again a significant difference between restricted writing and more extended writing, and again no significant difference between personal writing and formal writing. Here, however, there was a significant difference between no writing and writing, as well as a strong story effect.

Like the descriptive findings, these results suggest that when students wrote extensively about a story they were more likely than those who wrote in a restricted fashion to do well when asked about the story at a later date. Moreover, the results imply that the story that was interpreted played some part in the quality of students' response, and that writing--even restricted writing--seemed to help students more than no writing at all.

Finally, results from questions at the level of generalization are presented in Table 6.

Table 6

Generalization

QUALITY MEANS BY TREATMENT

No Writing	Restricted	Personal	Formal
4.13	4.00	3.94	4.30

No Writing versus Writing, Multivariate $F(1, 53) = .03$, ns

Writing, Multivariate $F(2, 51) = 4.93$, $p < .01$

RW vs. PW + FW, $t = 1.30$, ns

PW vs. FW, $t = 2.85$, $p < .005$

Story, Multivariate $F(2, 51) = .85$, ns

Treatment by Story, Multivariate $F(2, 51) = .76$, ns

Table 7

FINAL POST-TEST: QUALITY MEANS BY TREATMENT AND TIME

	Restricted	Personal	Formal
1 Week	5.4	5.9	5.9
2 Weeks	3.6	6.1	5.7
3 Weeks	4.0	5.5	6.2

Treatment, Multivariate $F(2, 60) = 17.7$, $p < .001$

Time, Multivariate $F(2, 60) = 2.06$, ns

Treatment by Time, Multivariate $F(2, 60) = 14.5$, $p < .01$

The findings here, like the findings at the descriptive level, show no difference between the effects of no writing and the pooled effects of the writing treatments. However, at this level, there is no significant difference between restricted writing and extended writing. Rather, the significant orthogonal contrast is between personal writing and formal writing. Again, story had little effect on outcomes and there was no treatment by story interaction.

At all three levels, then, when students wrote extensively about a story in either a personal or formal mode, they scored better on a post-test than when they wrote in a restricted mode. At the descriptive and interpretive level, personal and formal writing were indistinguishable in their effect on quality scores. Only at the level of generalization did those who wrote formally score better than those who wrote personally--a finding foreshadowed, perhaps, by our earlier discussion of response modes at the level of generalization.

The most surprising finding here is perhaps that when students did no writing at all they scored at least as well--if not better--than when they completed a restricted writing assignment. It may be possible that short answer questions, when they ask students to shift their focus of attention from one part of the story to another, from one level of analysis to another, actually interfere with students' overall impression of the story's plot, characters, and central meanings.

At the interpretive level, however, even restricted writing appears to help students more than no writing, while personal writing and formal writing provide equally strong bases for students' later responses. The power of extended writing to affect the quality of

students's later analysis of literature becomes even clearer in the results from the final post-test.

QUALITY OF RESPONSE: FINAL POST-TEST

The final post-test was administered during the last week of the Salinger unit. Because order of treatments was counterbalanced across the three classes, it was possible to contrast the effects of the three writing treatments on the quality of students' free responses to the stories at one, two, and three week intervals. Table 7 presents the means of quality scores for each of the writing assignments at weekly intervals, as well as statistical findings.

As Table 7 suggests, the effects of extended writing versus restricted writing become even stronger over time. After one week, students who had completed a restricted writing assignment scored lower than those who had written more extensively. The contrast becomes even sharper, however, at two and three week intervals. Students who had written extensively in either a personal or formal mode scored significantly better over time than when they had written in a restricted mode, even though time, by itself, had an insignificant effect on the quality of the responses.

Implications

The power of extended writing to improve the quality of students' later responses to literature seems clear from these results. The findings, in themselves, may not be surprising; we have a great deal of anecdotal evidence--testimony from students, teachers, and professional writers--that the things we write about are more truly ours than the things we merely read or think or even talk about. But the

implications of the findings may go beyond simply substantiating our long-standing intuition.

On the one hand, as teachers of literature and as teachers of writing, we have for many years overseen a comfortable, if somewhat passionless marriage between the two. We have had our students write about literature in a number of ways, but our purpose, recent research suggests, has been largely to teach or evaluate writing skills, using literature as the something to be written about. The results from this study suggest that it may be useful to balance our efforts more carefully. We may, that is, continue to use literature to teach writing, but we should also begin thinking about ways to use writing to teach literature. Employed as an instructional strategy, writing is a powerful and readily available resource for learning which we have thus far left relatively untapped. The findings here and elsewhere suggest that it may be time to begin exploiting that resource more fully.

On the other hand, whether we choose to use writing as an instructional tool or not, we should recognize that the writing tasks that we assign our students have intellectual consequences beyond the products that result. The forms in which our students write encourage not only characteristic modes of literary response in the present, but also characteristic ways of describing, interpreting, and generalizing about literature in the future. We need to ask whether writing about literature is, or should be, an end point, where students report on what they know to be true about a text, or a beginning, in which they explore its possibilities. We need to ask, in other words, how the writing tasks we assign our students are related to the goals of the literary education we are attempting to provide.

These are not easy questions, but questions like them need answering if we are to understand the implications of what we do in English classrooms and, more importantly, if we are to render what we do more educationally valuable for our students.

References

- Adams, M. and Bruce, B. (1982) Background knowledge and reading comprehension. In Langer, J.A. and Smith-Burke, M.T. (eds). Reader meets author: Bridging the gap. Newark, Delaware: International Reading Association.
- Andre, M. and Anderson, T.H. (1978). The development and evaluation of a self-questioning study technique. ERIC access no. ED 157 038.
- Angelotti, M.C. (1972). A comparison of elements in the written free responses of eighth graders to a junior novel and an adult novel. ERIC access no. ED 078 410.
- Annis, L. (1980) Effect of preference for assigned lecture notes on student achievement. ERIC access no. ED 197 258.
- Applebee, A.N. (1977). ERIC/RCS report: The elements of responding to a literary work: What we have learned. Research in the Teaching of English, 11, p. 255-71.
- Applebee, A.N. (1978). Teaching high-achieving students: A survey of winners of the 1977 NCTE achievement awards in writing. Research in the Teaching of English, 12, p. 339-348.
- Applebee, A.N. (1978). The child's concept of story. Chicago: University of Chicago Press.
- Applebee, A.N. (1981). Writing in the secondary school: English and the content areas. Urbana, IL: NCTE.
- Applebee, A.N. (1982). Literature. In Encyclopedia of Educational Research. New York: The Free Press.
- Applebee, A.N. (1983). Learning to write in the secondary school. Final report. NIE-G-80-0156.
- Beach, R.W. (1972). The literary response process of college students while reading and discussing three poems. ERIC access no. ED 083 627.
- Bleich, D. (1975) Readings and feelings: An introduction to subjective criticism. Urbana, IL: NCTE.
- Britton, J. (1970) Language and Learning. London: Penguin Books.
- Brown, A. (1982). Learning how to learn from text. In Langer, J.A. and Smith-Burke, M.T. (eds).
- Bruner, J.S. (1964). The course of cognitive growth. American Psychologist, 19, p.1-15.
- Bruner, J.S. and Olson, D.R. (1980). Symbols and texts as tools of

- thought. Interchange. 8:4. p. 1-15.
- Cooper, C.R. (1969). Preferred modes of literary response: The characteristics of high school juniors in relation to the consistency of their reaction to three dissimilar short stories. Dissertation Abstracts International. 31. 4004-4005A.
- Doctorow, M., Wittrock, M.C., and Marks, C. (1978). Generative processes in reading comprehension. Journal of Educational Psychology. 70:2. p. 109-118.
- Emig, J. (1971). The composing process of twelfth graders. Urbana, IL: NCTE.
- Emig, J. (1977). Writing as a mode of learning. College Composition and Communication. 28. p.122-127.
- Fish, S. (1980). Is there a text in this class. Cambridge: Harvard University Press.
- Fisher, J.C. and Harris, M.B. (1973). Effects of notetaking and review on recall. Journal of Educational Psychology. 65 p. 321-25.
- Graves, D.H. (1975). An examination of the writing processes of seven-year old children. Research in the Teaching of English. 9, p. 227-41.
- Griener, D.A. (1971). The responses of college freshmen to lyric poetry. Dissertation Abstracts International. 31, p.4004-4005A.
- Hayes, J.R. and Flower, L.S. (1980). Identifying the organization of writing processes. In Gregg, L.W. and Steinberg, E.R. (eds). Cognitive processes in writing. Hillsdale, NJ: Erlbaum.
- Hirsch, E.D. (1967). Validity in interpretation. New Haven: Yale University Press.
- Holland, N. (1975). Five readers reading. New Haven: Yale University Press.
- Kirkpatrick, C.G. (1972). The college literature class: Observations and descriptions of class sessions of The Scarlet Letter. ERIC access no. ED 070 098.
- Langer, J.A. and Applebee, A.N. (1983). Language, learning, and interaction: A framework for improving the teaching of writing. In Applebee, A.N. (1983).
- Langer, S.K. (1967) Mind: An essay on human feeling. Vol. 1. Baltimore: Johns Hopkins Press.
- Maqsood, M. (1980). Effects of personal lecture notes and teacher notes on recall of university students. British Journal of

Educational Psychology, 50, p. 289-294.

Marshall, J.D. (1983a). Schooling and the composing process. In Applebee, A.N. (1983).

Marshall, J.D. (1983b). Process and product: Case studies of writing in two content areas. In Applebee, A.N. (1983).

Martin, N. (1975). Writing and learning across the curriculum. London: Ward Lock Educational.

NAEP. (1981). Reading, Thinking, and Writing. Denver: Education Commission of the States.

Newell, G. (1983). Learning from writing in two content areas. Unpublished doctoral dissertation. Stanford University.

Odell, L. and Cooper, C. (1976). Describing responses to works of fiction. Research in the Teaching of English, 10:3, p.203-225.

Odell, L. (1977). Measuring changes in intellectual processes as one dimension of growth in writing. In Cooper, C.R. and Odell, L. (eds.). Evaluating writing: Describing, measuring, judging. Urbana, IL: NCTE.

Odell, L. (1980). The process of writing and the process of learning. College Composition and Communication, 31.

Paper, R.J. and Mayer, R.E. (1978). Notetaking as a generative activity. Journal of Educational Psychology, 70.4, p. 514-522.

Perl, S. (1979). The composing processes of unskilled college writers. Research in the Teaching of English, 13:4, p.317-336.

Pianko, S. (1979). A description of the composing processes of college freshmen writers. Research in the Teaching of English, 13, p. 5-22.

Purves, A. and Rippere, V. (1968). The elements of writing about a literary work. Urbana, IL: NCTE.

Purves, A. and Beach, R. (1972). Literature and the reader. Urbana, IL: NCTE.

Purves, A. (1981). Reading and literature. Urbana, IL: NCTE.

Reder, L.M. (1980). The role of elaboration in the comprehension and retention of prose: A critical review. Review of Educational Research, 50:1, p. 5-53.

Richards, I.A. (1929). Practical criticism. New York: Harcourt, Brace, and Jovanovich.

Rosenblatt, L. (1978). The reader, the text, the poem. Carbondale, IL: Southern Illinois University Press.

Spiro, R. (1980). Constructive processes in prose comprehension and recall. In Rand, S. and Brewer, W. (eds). Theoretical issues in reading comprehension. Hillsdale, NJ: Erlbaum.

Squire, J.R. (1964). The responses of adolescents while reading four short stories. Urbana, IL: NCTE.

Squire, J.R. and Applebee, R.K. (1968). High school English instruction today. New York: Appleton-Century Croft.

Vygotsky, L.S. (1962). Thought and language. Cambridge: M.I.T. Press.

Van Nostrand, A.D. (1979). Writing and the generation of knowledge. Social Education, 43:3, p. 178-80.

Watts, G.H. and Anderson, R.C. (1971). Effects of three types of inserted questions on learning from prose. Journal of Educational Psychology, 62:5, p. 387-94.

Weiss, J.D. (1968). The relative effects upon high school students of inductive and programmed instruction in the close reading of poetry. Dissertation Abstracts International, 30, p.230A.

Weiss, R.H. and Walters, S.A. (1980). Writing to learn. Paper presented at a meeting of the American Educational Research Association.

Wilcox, W.C., Richards, B.F., Merrill, M.D., and Hindwarsh, T.C. (1979). Effects of study strategy and isolated summaries on comprehension and recall of prose material. ERIC access no. ED 200 940.

Young, R.E., Becker, A.L., and Pike, K.L. (1970). Rhetoric: Discovery and change. New York: Harcourt, Brace, Jovanovich.

note, Langer, J.A. and Applebee, A.N. (in progress). Moving toward excellence: Writing and learning in the high school curriculum. Research sponsored by the National Institute of Education.